

Choosing Wisely Africa: Ten Low-Value or Harmful Practices That Should Be Avoided in Cancer Care

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PURPOSE Choosing Wisely Africa (CWA) builds on Choosing Wisely (CW) in the United States, Canada, and India and aims to identify low-value, unnecessary, or harmful cancer practices that are frequently used on the African continent. The aim of this work was to use physicians and patient advocates to identify a short list of low-value practices that are frequently used in African low- and middle-income countries.

METHODS The CWA Task Force was convened by the African Organization for Research and Training in Cancer and included representatives from surgical, medical, and radiation oncology, the private and public sectors, and patient advocacy groups. Consensus was built through a modified Delphi process, shortening a long list of practices to a short list, and then to a final list. A voting threshold of $\geq 60\%$ was used to include an individual practice on the short list. A consensus was reached after a series of teleconferences and voting processes.

RESULTS Of the 10 practices on the final list, one is a new suggestion and 9 are revisions or adaptations of practices from previous CW campaign lists. One item relates to palliative care, 8 concern treatment, and one relates to surveillance.

CONCLUSION The CWA initiative has identified 10 low-value, common interventions in Africa's cancer practice. The success of this campaign will be measured by how the recommendations are implemented across sub-Saharan Africa and whether this improves the delivery of high-quality cancer care.

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INTRODUCTION

Choosing Wisely Africa (CWA) builds on work from the Choosing Wisely (CW) initiatives in the United States, Canada, and India¹⁻³ and aims to identify low-value, unnecessary, or harmful cancer practices that are frequently used in different African countries (Table 1). Low- and middle-income countries (LMICs) such as most African countries face a growing burden of cancer and a pressing need to strengthen cancer care delivery systems.⁴ Value-based cancer care is therefore of particular importance in LMICs. Notable efforts with varying levels of success have aimed at modifying guidelines developed in high-income countries to reflect the health care capacities and infrastructure in LMICs, some with an emphasis on Africa.⁵ Suboptimal compliance to consensus-based national guidelines is not uncommon on the African continent, and could lead to substantial and otherwise avoidable wasteful resources.⁶

The CW movement is driven by physicians and surgeons who, through a consensus-based process, identify common medical practices that do not offer

benefit to patients and may cause harm. CWA comes as the second CW campaign in LMICs after CW India³ and the first on the African continent. This African Organization for Research and Training in Cancer (AORTIC)-initiated campaign aims to introduce and facilitate a conversation among cancer-treating physicians, both oncologists and nononcologists, nurses in cancer care, and patients, and, to a larger extent, policy makers. The conversation is about reducing the use of low-value cancer practices on the continent, with an overall goal of improving the quality of cancer care. Africa is a large continent with differing health care infrastructure and systems resulting in high variability in how health care is delivered across different countries. However, there are a lot of similarities in terms of resources and practice settings. It is therefore important that professional and academic bodies such as AORTIC advocate for a unified way of practicing oncology wisely and for stewardship of resources as African countries move toward universal health coverage and implementing their national cancer control plans. In this article, we describe the methods used for, and the results of, identifying a list of

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CONTEXT

Key Objective

Can equitable, cost-mindful and high-quality cancer care be delivered in resource-constrained settings?

Knowledge Generated

The Choosing Wisely Task Force, composed of oncology specialists from different disciplines, nurses, and patient representatives, suggests 10 recommendations that, if implemented, will improve cancer care delivery in Africa. The ultimate goal is to improve the quality of life of patients and use resources judiciously by adopting pragmatic approaches to cancer management. The relevance of Choosing Wisely Africa (CWA) is shown by the broad spectrum of its reach as it touches all spheres of cancer continuum including diagnosis, treatment (curative and palliative), and surveillance.

Relevance

Creating the CWA list is only the first step in efforts to reduce the delivery of low value care in Africa which in return will reduce the high cost associated with cancer care. It is hoped that CWA will stimulate implementation research and policy discussion on the concept of value.

10 cancer practices that are frequently used on the African continent that are considered of low value, unnecessary, or harmful to the patient. In the same context, we provide an explanation of why we think these practices should be avoided.

METHODS

The CWA Task Force was convened by AORTIC and included representatives from LMICs in Sub-Saharan Africa (SSA) because this is most representative of the population in Africa. Eleven individuals were included as representatives from surgical, medical, and radiation oncology physician specialties from the private and public sectors and from oncology nursing; a national patient advocacy group representative was also included. Members of the task force also represented several national organizations. The task force was supported with methodologic expertise from 3 nonvoting advisors from Canada with experience in CW methodology and global cancer policy (G.M., C.M.B., and N.H.).

Six guiding principles were used to develop the final cancer list: evidence of low value/harm, frequent use in Africa, cost (including opportunity cost), relevance to the African cancer context, clarity of the wording, and feasibility of future measurement activity. The scope of the initial list of cancer practices to be considered incorporated practices from oncology screening, diagnosis, treatment, and palliative care. The initial list was developed through a review of existing oncology lists from CW in the United States, Canada, and internationally. New submissions were also provided by the task force members and from the broader oncology physician community through facilitation from AORTIC.

Task force consensus was built through a modified Delphi process.⁷ Using an electronic survey, each member was given the opportunity to vote on the inclusion and exclusion of practices, and additional items could be suggested.

The long list was reduced to a short list using the same electronic voting process. A voting threshold of $\geq 60\%$ was used to include an individual practice on the short list. After voting was completed, the task force further deliberated, and a consensus-based ranked final list was created (Table 1). This final list was shared and received final endorsement by AORTIC, the Kenya Society of Hematology and Oncology (KESHO), and the West African College of Surgeons (WACS).

RESULTS

1. Do Not Order Test to Detect Recurrent Cancer in Asymptomatic Patients if There Is Not a Realistic Expectation That Early Detection of Recurrence Can Improve Survival or Quality of Life

Use of routine follow-up blood tests and imaging in most solid tumors is not associated with improved patient outcomes. For example, routine measurement of Ca 15.3 in patients who have completed curative-intent treatment of breast cancer does not provide useful information and is potentially harmful because it can provoke unnecessary anxiety.^{8,9} This applies to other imaging or tumor marker tests in cancers in which the knowledge of early asymptomatic disease recurrence does not improve patient outcomes. There are specific situations, such as in colorectal cancers, testicular cancer, and choriocarcinoma, in which early detection of local or distant recurrences affect the management and outcomes.¹⁰⁻¹³ It is therefore important to know when it is prudent to order a test, being cognizant of the natural history, available interventions, and overall prognosis of the specific cancer type.

2. Do Not Decide Treatment of Potentially Curable Cancers Without Inputs From a Multidisciplinary Oncology Team

Cancer management is complex and thus requires a multidisciplinary team approach. This is limited in most low-income countries including those in Africa, given the lack of

TABLE 1. Summary of Choosing Wisely India Final List of Low-Value or Harmful Practices That Should Be Avoided in Cancer Care Practice

Practice	Origin of Recommendation	Revisions Made to Original Recommendation?
Do not order test to detect recurrent cancer in asymptomatic patients if there is not a realistic expectation that early detection of recurrence can improve survival or quality of life.	Choosing Wisely Canada Oncology	No
Do not decide treatment of potentially curable cancers without inputs from a multidisciplinary oncology team.	Choosing Wisely India Oncology	No
Do not use surgery as the initial treatment without considering presurgical (neoadjuvant) systemic therapy and/or radiation for certain cancer types and stages where it is effective at improving local cancer control, quality of life, or survival.	Commission on Cancer	No
Do not initiate cancer treatment without defining the extent of the cancer (through clinical staging) and discussing the intent of treatment with the patient.	Commission on Cancer	No
Do not perform surgery to remove a breast lump without histologic confirmation of malignancy unless a needle biopsy cannot be performed.	Commission on Cancer	No
Do not use combination chemotherapy (multiple drugs) instead of chemotherapy with 1 (single) drug when treating an individual for metastatic breast cancer unless the patient needs a rapid response to relieve tumor-related symptoms.	ASCO	No
Do not treat low-risk clinically localized prostate cancer (eg, Gleason score < 7, PSA < 10.0 ng/mL, and tumor stage ≤ T2) without discussing active surveillance as part of the shared decision-making process.	American Urological Association	No
Do not delay palliative care for a patient with serious illness who has physical, psychological, social, or spiritual distress because the patient is pursuing disease-directed treatment.	American Academy of Hospice and Palliative Medicine	No
Do not use systemic therapy for solid-tumor patients with the following characteristics: low performance status (3 or 4), no benefit from prior evidence-based interventions, and no strong evidence supporting the clinical value of additional anticancer treatment; instead, focus on symptom relief and palliative care.	ASCO	Yes
Do not initiate longer courses of radiation therapy where evidence supports the use of shorter courses of radiation. For example, use a single fraction of palliative radiation for an uncomplicated painful bone metastasis and use shorter courses as a part of breast conservation therapy in women with early-stage invasive breast cancer.	New Suggestion	N/A

NOTE: This list is meant to augment the existing Choosing Wisely USA, Canada, and International lists with specific African context. As such, the lack of inclusion of any existing published practices does not imply nonsupport of those practices for being low value or harmful.

Abbreviations: ASCO, American Society of Clinical Oncology; N/A, not applicable; PSA, prostate-specific antigen.

available physician and nurse oncologists, specialized surgeons, and other experts who are needed for a successful multidisciplinary approach to cancer care.¹⁴ Frequently, a sole expert often decides the entire treatment sequence of a patient. Cervical and breast cancer are the most common cancers in Africa, and both require the involvement of multiple disciplines to deliver evidence-based care.

Multidisciplinary team care improves treatment outcomes and ultimately patient satisfaction.¹⁵⁻¹⁷ It facilitates the exchange of information and regular communication flow among all those involved in the patient's care. In centers without access to these services, efforts should be made to present the cases for input from colleagues in other centers. Innovative use of technologies such as emails/WhatsApp or the use of other types of virtual tumor boards can help facilitate such engagement.

3. Do Not Use Surgery As the Initial Treatment Without Considering Presurgical (neoadjuvant) Systemic Therapy and/or Radiation for Certain Cancer Types and Stages Where It Is Effective at Improving Local Cancer Control, Quality of Life, or Survival

For certain cancer types such as breast, rectal, gastric, prostate, and non-small-cell lung cancer, neoadjuvant treatments such as presurgical chemotherapy, hormone/endocrine therapy and/or radiation therapy followed by surgery have led to improved patient outcomes for disease at locally advanced stages.¹⁸ Presurgical therapy may decrease the size of the primary tumor, allowing for limited surgery that maintains organ function, improves resectability, reduces local recurrence, and improves the quality of life.⁹ Other examples include voice-sparing surgery in laryngeal cancer and limb-sparing/salvage surgery in extremity soft tissue sarcoma.^{13,18,19} Despite these evidence-based facts, many patients who are eligible for presurgical therapy undergo upfront surgery leading to suboptimal outcomes. This is a recurring issue in the absence of a multidisciplinary team approach to cancer care.

4. Do Not Initiate Cancer Treatment Without Defining the Extent of the Cancer (through clinical staging) and Discussing the Intent of Treatment With the Patient

Treatment intent is largely determined by the extent of cancer at the time of diagnosis. The extent of the disease can be determined through clinical staging and can be documented using information from history and physical examination, relevant biopsy results, and appropriate imaging on the basis of the type of cancer. To deliver care that is consistent with patient values and preferences, it is essential that patients understand the goal of treatment: either it is to potentially cure the cancer or it is palliative. It is not uncommon for patients to decline palliative intervention with systemic chemotherapy after understanding the intent and potential toxicities associated with the treatment. Most patients, particularly those with advanced or metastatic

cancer, do not have a complete understanding of cancer treatment intent; they believe that care can be curative when, in fact, it is only offered with palliative intent.²⁰ Patients are usually oblivious to treatment costs and potential adverse effects, which in most cases interfere with their quality of life and expected outcomes.²¹

5. Do Not Perform Surgery to Remove a Breast Lump Without Histologic Confirmation of Malignancy Unless a Needle Biopsy Cannot Be Performed

It is not uncommon in SSA to find a patient who has undergone a simple lumpectomy or mastectomy without a prior verification of cancer diagnosis.²² This occurs despite studies showing that confirmation of diagnosis of breast cancer before any operation allows for a full multidisciplinary care approach, decreases the total number of surgical procedures needed for treatment, and improves cosmetic outcomes^{23,24} and options, including breast conservation surgery where applicable and feasible. Needle biopsy for a breast cancer diagnosis is generally less costly than an open surgical biopsy. In addition, given the high prevalence of benign breast masses (especially in young patients), a core needle biopsy will prevent unnecessary surgeries.²⁵ Fine-needle aspirates require good cytologic interpretation, which is frequently lacking in SSA and should not be used in place of core needle biopsies.

6. Do Not Use Combination Chemotherapy (multiple drugs) Instead of Chemotherapy With One (single) Drug When Treating an Individual for Metastatic Breast Cancer Unless the Patient Needs a Rapid Response to Relieve Tumor-Related Symptoms

Several studies have shown that the routine use of combination chemotherapy versus single agent does not offer a survival advantage in metastatic breast cancer but instead increases toxicities and hence might adversely affect the quality of life.^{26,27} Combination chemotherapy should be considered over single-agent therapy only when there is a large burden of symptoms (visceral crisis) and a quick response to relieve symptoms is needed to prevent rapid deterioration.²⁸

7. Do Not Treat Low-Risk Clinically Localized Prostate Cancer (eg, Gleason score < 7, Prostate-Specific Antigen < 10.0 ng/mL, and tumor stage ≤ T2) Without Discussing Active Surveillance as Part of the Shared Decision-Making Process

The ProtecT Trial showed that mortality from prostate cancer was low irrespective of which treatment modality was used among active surveillance, surgery, or radiation.²⁹ Thus, the choice of treatment should be based on shared decision making and should be individualized to the patient's disease characteristics, overall health, and personal preferences. Active surveillance may spare a patient from complications from surgery, radiotherapy, or both. When active surveillance is the treatment of choice, the nature of the surveillance, the frequency of follow-up, and the

importance of compliance should be emphasized as part of shared decision making.³⁰

8. Do Not Delay Palliative Care for a Patient With Serious Illness Who Has Physical, Psychological, Social, or Spiritual Distress Because the Patient Is Pursuing Disease-Directed Treatment

Numerous studies, including randomized trials, provide evidence that palliative care improves pain and symptom control, improves family satisfaction with care, and reduces costs.³¹⁻³⁴ It can also improve the extent to which care is delivered in keeping with patient values and preferences.^{35,36} Palliative care does not accelerate death, and it may prolong life in patients with advanced cancer, can be delivered concurrently with active anticancer therapy, and may improve tolerance of such therapies.^{37,38}

9. Do Not Use Systemic Therapy for Solid-Tumor Patients With the Following Characteristics: Low Performance Status (3 or 4), No Benefit From Prior Evidence-Based Interventions, and No Strong Evidence Supporting the Clinical Value of Additional Anticancer Treatment. Instead, Focus on Symptom Relief and Palliative Care

Patients with poor performance status do not benefit from systemic therapy; rather, they suffer treatment-related toxicity, leading to poor quality of life.³⁸⁻⁴⁰ In these patients, the focus should be on symptom management and palliative care. Exceptions to this would include diseases that are highly sensitive to chemotherapy and offer a chance of cure even in advanced stages (ie, germ cell tumor, lymphoma, testicular cancer, and gestational trophoblastic tumors).

10. Do Not Initiate Longer Courses of Radiation Therapy Where Evidence Supports the Use of Shorter Courses of Radiation. For Example, Use a Single Fraction of Palliative Radiation for an Uncomplicated Painful Bone Metastasis and Use Shorter Courses as a Part of Breast Conservation Therapy in Women With Early-Stage Invasive Breast Cancer

Despite compelling evidence for single-fraction radiotherapy for palliative bone metastasis,⁴¹⁻⁴³ there is a reluctance to use this hypofractionation regimen.⁴⁴ A single-fraction regimen to treat previous untreated, uncomplicated bone metastasis provides pain relief and morbidity comparable to that of a multiple-fraction regimen.⁴¹ In addition, a single-fraction treatment course offers the advantage of convenience for both the patient and the caretaker and minimizes financial toxicity. It has the added benefit of potential re-irradiation in a patient who might live long enough to experience pain in the same location.⁴⁵ Current evidence supports the use of hypofraction (3-4 weeks of treatment instead of 5-6 weeks) in early-stage breast cancer, with equivalent local control and survival.⁴⁶ Currently, for prostate cancer, hypofractionated radiotherapy doses over 4-6 weeks instead of 8 weeks is the current recommendation when feasible.⁴⁷

DISCUSSION

CWA engaged multidisciplinary stakeholders from across SSA to identify 10 low-value, and potentially harmful, practices that are common in the African context. This work was guided by previous CW initiatives, which thus far have been conducted (with the exception of India) in high-income countries. The CWA project has included perspectives from multidisciplinary oncology specialties, the private and public sectors, and patient advocacy organizations.

The relevance of CWA is shown by the broad spectrum of its reach. It touches all sectors of the cancer continuum, including diagnosis, treatment (curative and palliative), and surveillance; the recommendations also carefully consider the most burdensome malignancies on the continent.⁴⁸

It is increasingly recognized that context-specific considerations must be given to clinical practice guidelines. We have seen with previous CW publications in Canada and the United States that, despite these countries both being regarded as high-income countries, they have different recommendations.^{1,2} CWA includes recommendations from CW India, Canada, and the United States that we believe are not entirely dependent on Gross Domestic Product, but the available infrastructures in Africa were also taken into consideration. Context can also confer different nuances on the items shared by the different CW initiatives. In high-income countries, for example, the recommendation to deliver radiation to bone metastases in no more than 1 fraction may help improve cost and efficiency without affecting access. In Africa, where radiotherapy is often a scarce recourse with lengthy wait times coupled with a significantly higher prevalence of metastatic disease, the same recommendation will have the added benefits of improving access and affording palliation to more patients.

Health systems in LMICs are struggling to close the equity gaps in the delivery of high-quality and equitable cancer care because of fragmentation and underfunding. Nonetheless, some African countries have made significant strides in increasing public expenditure and delivering affordable cancer care to some of their populations. A focus on quality and value will be critical to sustain and build on such improvements. The CW construct is particularly suited to LMICs given that one of the major threats to the quality of health outcomes is the overuse of unnecessary care, which can have far-reaching effects in the face of limited resources.⁴⁹

Creating the CWA list is only the first step in efforts to reduce the delivery of low-value care in Africa, which, in return, will reduce the high cost associated with cancer care. The call for using resources wisely is not new. In 2010, the WHO called for “more health for the money” by choosing resources wisely. Ten leading sources of health system inefficiencies were identified. These include the inappropriate use of medications and the overuse of investigations and procedures.⁵⁰

Cancer drugs and technologies with exorbitant costs are increasingly approved for cancer care. Paying out of pocket for these drugs and technologies is the norm in Africa, even in countries with some forms of universal health coverage. CWA will contribute to decreasing the burden of financial toxicities, which are more likely to be catastrophic in LMICs, given the lack of safety nets for education, job security, and housing.

With the recent economic growth in Africa and the increasing digital connectivity of many sectors of the population, demand is likely to increase for exorbitantly expensive drugs and tests that have little benefit and may harm patients. CWA was carefully written by people on the ground and therefore represents a cancer “groundshoot” promoting locally affordable cancer care modalities from cancer screening and prevention to treatment and palliative care, as clearly outlined in these 10 CWA recommendations. CWA’s aim is to improve outcomes rather than to promote the latest drugs and technologies.⁵¹

The primary strength of CWA is the involvement of AORTIC, which is the premier African cancer organization and has membership from almost all SSA countries. Embedding the CW campaigns within specialty societies with credible leadership is considered one of the strongest attributes of CW as it facilitates its adoption by the wider oncology community.⁵² This multidisciplinary task force has patient representation and is diverse, with representation of women and French-, Portuguese-, and English speaking-countries and many SSA regions. A unique aspect to CWA is its

oncology nursing representation, which is essential, given the crucial role of nursing in the cancer care continuum in Africa. On completion of the list, CWA was endorsed by AORTIC. In addition, it was endorsed by 2 other major organizations on the continent: WACS and KESHO. These endorsements should encourage adoption of the CWA top-10 list across the African continent.

Early indicators of the implementation of the CW campaign in North America are promising.⁵² In India, the CW has spurred several activities and it is hoped that it will contribute to ongoing policy dialogue within and between clinical and patient communities in that country.⁵³ It is hoped that CWA will stimulate implementation research and policy discussion on the concept of value in the continent.

Follow-up initiatives of other CW programs have primarily described the extent to which practice is divergent from CW recommendations.^{54,55} It is therefore important that a CWA implementation plan be put in place.

The CWA Task Force, with the backing of AORTIC and other relevant stakeholders, recommends that these statements be given high priority in our treatment choices. The ultimate goal is to improve the quality of life of our patients and to use resources judiciously by adopting pragmatic approaches to cancer management. The next steps will be to analyze the implementation of these statements in Africa and to understand the extent to which this leads to improved outcomes.

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